



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/924,832 | 08/08/2001 | Toshifumi Togashi | 2271/65666 | 2871 |

7590 05/22/2003

Ivan S. Kavrukov
Cooper & Dunham LLP
1185 Avenue of the Americas
New York, NY 10036

EXAMINER

SCHLAK, DANIEL K

ART UNIT

PAPER NUMBER

3653

DATE MAILED: 05/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/924,832

Applicant(s)

TOGASHI, TOSHIFUMI

Examiner

Daniel K Schlak

Art Unit

3653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23, 25-52 and 54-64 is/are rejected.
- 7) ☒ Claim(s) 24 and 53 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☒ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Oath/Declaration

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It does not identify the mailing or post office address of each inventor.

A mailing or post office address is an address at which an inventor customarily receives his or her mail and may be either a home or business address. The mailing or post office address should include the ZIP Code designation. The mailing or post office address may be provided in an application data sheet or a supplemental oath or declaration. See 37 CFR 1.63(c) and 37 CFR 1.76.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The current title describes approximately 100,000 already existing patents.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 3653

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1-3, 5, 9, 10-21, 23, 30-32, 34, 38, 39-50, 52, 59, 60, 61, 62, 63, and 64 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,535,981 to Watanabe et al.

Applicant is specifically directed to figures 2 and 3 of Watanabe, and also column 5, which describes the lever mechanism for changing the force of on the "tilt member".

Watanabe teaches a sheet feeder for sheets stacked on a sheet material stacking member one by one from the topmost sheet for feeding each of the sheet materials, the feeder comprising a roller (2) and a tilt member (71) which has a tilt face (72), wherein the roller has a front end running against the tilt face, said tilt member having a contact face (top of 72, indicated by arrow 70) in contact with said sheet feed roller in the shape of an edge along an axial direction of the sheet feed roller. The tilt member, tilt face, and contact face all comprise portions which can be interpreted as "edges". The tilt member is in pressing contact with the roller for "pivotal" movement with respect thereto. Watanabe teaches means for advancing and retracting said tilt member (see column 5, lines 18-50). The length of the tilt member's contact face is

Art Unit: 3653

less than the axial length of the feed roller. The distance between the contact faces between the roller and the tilt face and the roller and the top-most paper is approximately 2-6mm, which is clear by the proportions of figure 3.

Thin elastic member (91a) is provided downstream of the contact areas. The elastic member is lined up with the center of the roller. The thin elastic member crosses a tangential direction of the contact area, and includes a *bend* which hooks "toward" the roller at a rear end. A second elastic member (4) is shown in figure 3, which with the other elastic member (91a) are placed on "both sides" of the roller.

The elastic member crosses the tangential direction at an angle between 20 and 60 degrees – approximately 30 degrees. The elastic member is a friction member.

Watanabe teaches a pressure lever (81) having a free end in contact with the stacking member, which has a sensing lever (40) which is "coaxial" (do they have an axis? Such has not been recited in the claims anyway) with the pressure lever for pivotal movement associated with insertion-removal of a cassette having a stacking member, and a plurality of elastic members (any solid object is elastic to some degree) (42 and 82) disposed between the sensing lever and the pressure lever. The pressure lever is pivotally mounted in association with the sensing lever such that when an angle of the pressure lever to said sensing lever is greater than a predetermined angle.

Figures 2 and 3, and column 5, clearly teach the means for adjusting an urging force of the compression spring (78) on the tilt member.

Watanabe teaches an image forming mechanism.

Art Unit: 3653

Watanabe's "means for coming in pressing contact" with the roller is equivalent to that shown in at least several of the several embodiments of the instant application.

Watanabe teaches a "pressing contact" that is edge-shaped (already described) and along a line parallel to the feed roller axis. Via the apparatus disclosure, and through further description of the functioning of the device shown in figures 2 and 3, Watanabe recites the method of claims 62 and 64.

Claims 1-3, 5, 9-22, 25-32, 34, 38-51, and 54-64 rejected under 35 U.S.C. 102(b) as being anticipated by US 5,996,989 to Cahill et al.

Cahill teaches a sheet feeder for sheets stacked on a sheet material stacking member one by one from the topmost sheet for feeding each of the sheet materials, the feeder comprising a roller (24) and a tilt member (55) which has a tilt face, wherein the roller has a front end running against the tilt face, said tilt member having a contact face (indicated by arrow 56) in contact with said sheet feed roller in the shape of an edge along an axial direction of the sheet feed roller. The tilt member, tilt face, and contact face all comprise portions which can be interpreted as "edges". The tilt member is in pressing contact with the roller for "pivotal" movement with respect thereto. Cahill teaches means for advancing and retracting said tilt member (see figure 3, where the Examiner has made notations referring to pertinent aspects of the drawing). The length of the tilt member's contact face is less than the axial length of the feed roller. The distance between the contact faces between the roller and the tilt face and the roller and the top-most paper is approximately 2-6mm, which is clear by the proportions of figure 3

Art Unit: 3653

(particularly because the contact point between the roller and the paper will not be constant, and clearly will reside within 6mm at least some of the time.

Thin elastic member (72) is provided downstream of the contact areas. The elastic member is lined up with the center of the roller. The thin elastic member crosses a tangential direction of the contact area, and includes a *bend* which hooks "toward" the roller at a rear end (considering it is completely circular, the hook should not be hard to envision. A second elastic member (71) is shown in figure 3, which with the other elastic member are placed on "both sides" of the roller.

The elastic member crosses the tangential direction at an angle between 20 and 60 degrees – approximately 30 degrees. The elastic member is a friction member.

Cahill teaches a pressure lever (70) having a free end in contact with the stacking member, which has a sensing lever (45) which is "coaxial" (do they have an axis? Such has not been recited in the claims anyway) with the pressure lever for pivotal movement associated with insertion-removal of a cassette having a stacking member, and an elastic member (63) disposed between the sensing lever and the pressure lever. The pressure lever is pivotally mounted in association with the sensing lever such that when an angle of the pressure lever to said sensing lever is greater than a predetermined angle. When the sensing lever is pushed, the spring bearer acts on the spring to change the force on the tilt member.

Figure 3 clearly teaches the means for adjusting an urging force of the compression spring (57) on the tilt member.

Cahill teaches an image forming mechanism.

Art Unit: 3653

Cahill's "means for coming in pressing contact" with the roller is equivalent to that shown in at least several of the several embodiments of the instant application.

Cahill teaches a "pressing contact" that is edge-shaped (already described) and along a line parallel to the feed roller axis. Via the apparatus disclosure, and through further description of the functioning of the device shown in figure 3, Cahill recites the method of claims 62 and 64.

Cahill further teaches 1st and 2nd Cams (24, 26, 23). The first cam separates the stacking member from the roller. The stacking member has presser ribs. The 2nd cams (27, 26) separate the tilt member from the roller. Figure 4 gives a full description of the cams, the stacking member, the ribs, and tilt member as they interrelate to anticipate claims 25-29 and 54-58.

Claims 1, 6-8, 30, and 35-37 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,277,417 to Moritake et al.

Moritake teaches the synthetic resin tilt member (46) and a metal plate (see fig 5) which is elastic and surrounds the tilt member on upper and lower sides. The tilt member clearly has an edge (also shown in figure 5) which runs parallel to the longitudinal axis of the roller.

Claims 1-4 and 30-33 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6,318,716 to Okuda.

Art Unit: 3653

Okuda, in column 4, lines 62-64, discloses how the tilt member (43) with tilt face (17) in the shape of an edge is retracted from and advanced toward the roller, wherein means for advancing and retracting the tilt member comprise a rib (45a) and guide rail (shaft, 42a).

Based upon the large radius of arm (43) compared with the distance traversed by the tilt face (17), the movement is almost completely linear, against spring (44), which is equivalent to the linear distance traversed by the tilt face of the instant application.

Allowable Subject Matter

Claims 24 and 53 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

No spring bearer and spring pressure changing means were found in the art which act in conjunction with the spring and the tilt member as described in these claims. Namely, no spring bearer was found in such a context which is disposed slidably in an axial direction of the spring.

Response to Arguments

Applicant's arguments filed 3/17/03 have been fully considered but they are not persuasive.

Art Unit: 3653

The claims describe a contact face in contact with the feed roller, the contact face being in the shape of an edge...

The arguments claim that this feature is not shown in the art.

The Examiner reminds applicant that the word "face", in all pertinent definitions, is defined as a surface. An edge, in all pertinent representations, is best described as the border or end-point of a surface on one side or end. An "edge" is typically thought of as the failure of a surface to continue through space. The edge of a knife is where the front and back faces intersect. The edge of a plateau or mesa is where it drops off to a cliff vertical face.

In other words, the phrase "face being in the shape of an edge" is somewhat of a contradiction in terms to begin with. In real 3-space, two surfaces are required for the formation of an edge, and the edge is not in any way capable of being interpreted as a surface in itself. In the event that an "edge" were filed down to turn it into a surface (face), such action would only result in the formation of a new surface, separated from the original surfaces by two new edges. If it were "rounded", that is, filed so that the intersection of the two surfaces no longer formed a definitive angle, the rounded surface would by definition fail to be an edge.

Thus, in the absence of a better interpretation, the Examiner in the first Office action interpreted "face being in the shape of an edge" to mean "a face (surface or plurality of surfaces) having an edge somewhere within it or along it."

Certainly all of the references teach contact faces having an edge. It is hard to conceive of a face not having an edge, except of course when a would-be edge is

Art Unit: 3653

rounded or filed down, and although in some of the references this is the case for one or two of the borders of the contact face, the other (non-rounded) borders of the respective faces are still edges and always will be.

Thus, for all intents and purposes, the Examiner has interpreted the *top* surfaces, inclusive of all surface area(s) which come(s) in contact with air, the roller, and/or the sheets, of each tilt member shown in the art, to be the "contact face" (or faces, plural, which combine to give a single face, in latter instance analogous to a human face). Each of them has at least one edge. The contact faces each have some portion which contacts the roller.

The claims never directly say that the edge alone contacts the roller. It seems that this feature is the thrust of the arguments and the specification, although not claimed or directly argued. Although this is a new issue not yet raised in the prosecution of the instant application, the Examiner asserts that this too is to be found in the art (Figure 3 of Okuda, and by the flexible natures of the tilt members of Cahill and Watanabe, it surely cannot be said that the edges of the contact faces never contact the roller, be this action innate or inadvertent).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

Art Unit: 3653

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel K Schlak whose telephone number is 703-305-0885. The examiner can normally be reached on Mon-Thurs.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Walsh can be reached on 703-306 - 4173. The fax phone numbers for the organization where this application or proceeding is assigned are 703-306-4195 for regular communications and 703-306-4195 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308 - 1113.

dk
May 21, 2003

Application/Control Number: 09/924,832
Art Unit: 3653

Page 12


DONALD F. WELSH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600